



Special Waste

Solid Waste Management Program technical bulletin

7/2003

Overview

This technical bulletin provides guidance for disposal of special waste at sanitary landfills. It does not fully document other clean up or disposal options, though it touches briefly on the disposal of special waste at other types of landfills. This technical bulletin does not address all aspects of compliance with any other existing federal, state or local regulatory requirements.

What is a special waste?

The Missouri Department of Natural Resources solid waste rules define special waste as "waste which is not regulated hazardous waste, which has physical or chemical characteristics, or both, that are different from municipal, demolition, construction and wood wastes and which potentially requires special handling." (Reference 10 CSR 80-2.010 (102)). The special waste designation includes a variety of wastes. Typically, a special waste is a non-hazardous industrial waste that may require special handling or consideration at the disposal area due to its characteristics. Although special wastes are often a small part of the total quantity of wastes disposed of at a sanitary landfill, they represent an endless variety. The following are examples of special wastes: contaminated soil, raw animal manure, incinerator ash, industrial or manufacturing process waste and sludge, wastewater and water treatment plant sludge and large quantities of dead animals.

Why is the Department of Natural Resources interested in special waste?

The Solid Waste Management Program (SWMP) wants special wastes handled in a manner that does not pose a present or future threat to public health or the environment. Waste must be evaluated to prevent regulated quantities of hazardous waste from being disposed of in sanitary, demolition or utility waste landfills because these facilities are not permitted or designed to accept hazardous waste. Tracking special waste disposal is also important. The landfill owner/operator and the department need to know the types and quantities of special waste disposed of, should any future problems or developments (testing) show that a waste should be handled in a more environmentally sound manner. Landfill owners or operators are responsible for the management of wastes they accept and may ultimately be liable for cleanup costs if materials accepted at the landfill pose threats to human health or the environment.

Do I have any alternatives to sending my waste to a landfill?

The Missouri Solid Waste Management Law encourages reduction and recycling as alternatives to landfill disposal. A variety of alternatives to landfill disposal exists for many types of wastes. You may find an alternative to landfill disposal through the department's Industrial Material Exchange Service of the Environmental Improvement and Energy Resources Authority (EIERA).



The Industrial Material Exchange Service telephone number is (573) 751-4919. The Department of Economic Development provides a Product Finder service to put waste generators in touch with other companies that may be able to use or reuse off-specification products or other discarded materials. The Product Finder telephone number is 1-800-523-1434.

Who can accept special waste?

In Missouri, any permitted sanitary landfill can potentially accept properly characterized special waste accompanied by a Special Waste Disposal Request Form. Though owner/operators of demolition landfills may request to accept special waste through a formal permit modification, it is generally not appropriate to dispose of most special wastes at a demolition landfill. Similarly, landfills permitted to accept a specific type of special waste, such as foundry waste and utility waste landfills, must request a permit modification to accept other wastes. A Special Waste Disposal Request Form supplied by the waste generator is not sufficient.

For example, the regulations state that demolition landfills may not accept any waste other than demolition and construction waste, brush, wood waste, cut, chipped or shredded tires as defined in 10 CSR 80-8.020, inert plastics, and clean fill material. Disposal of other inert solids at demolition landfills requires a modification to the permit approved by SWMP prior to accepting the waste. The facility design and the physical and chemical characteristics of the waste provide the basis for this type of permit modification. The important thing for owner/operators of demolition landfills, utility waste landfills and special waste landfills to note is that disposal of wastes other than those listed in the regulations or specifically approved in the permit documents is prohibited.

I'm a special waste generator. How do I get a sanitary landfill to accept my waste?

To request special waste approval from the sanitary landfill owner/operator, you must submit written information about the waste, using the Special Waste Disposal Request Form, to the receiving landfill for the owner or operator's review and signature.

The waste generator is responsible for determining whether the waste is hazardous. The following guidance is based on the federal regulations, 40 CFR 262.11- Hazardous Waste Determination. The generator of the waste should determine if the waste is a hazardous waste using the following method:

1. Determine if the waste is excluded from being a hazardous waste per 10 CSR 25-4.261(2)(A) and 40 CFR 261.4; then
2. Determine if the waste is listed as a hazardous waste per 10 CSR 25-4.261(2)(D) and 40 CFR 261 subpart D; then
3. Determine if the waste is a characteristic hazardous waste (i.e. ignitable, corrosive, reactive, or toxic). Consider the materials used or the processes used to generate the waste. Based on this knowledge, determine the appropriate analysis in accordance with 10 CSR 25-4.261(2)(C) and 40 CFR 261 subpart C.

EXAMPLE: Soil contaminated with virgin petroleum product from a tanker spill.

1. Determine if it is excluded as a hazardous waste. Under 40 CFR 261.4(b)(10) petroleum-contaminated media may be excluded only if it is from an Underground Storage Site and is subject to corrective action under 40 CFR 280 (See Closure Guidance Document, Under-

ground Storage Tank for guidance, which is available by calling the Environmental Assistance office at 1-800-361-4827).

2. Determine if the waste is a listed hazardous waste. Petroleum contaminated media is not a listed hazardous waste.
3. Determine if the waste is a characteristic hazardous waste. The waste is stable in the environment and does not catch fire easily (ignitability and reactivity) and the pH is between 2 and 12.5 (corrosivity). Since the material is a virgin product, the contaminated soil should be tested for benzene (toxicity). If the petroleum-contaminated soil is determined to be non-hazardous and contains no free liquids (paint filter analysis), it may be accepted as a special waste at a sanitary landfill. At their discretion, the landfill owner or operator may refuse any waste based on the waste's characteristics or require additional testing.

Testing for hazardous waste characteristics requires sampling at the point of generation. If the analyses detect any property characteristic of hazardous waste, you must manage the waste as a hazardous waste.

It is very important to understand that hazardous waste remains a hazardous waste when diluted or stabilized, unless it is specifically excluded from the definition of hazardous waste after the process (40 CFR 261.3). You may not dilute hazardous waste solely for the purpose of rendering it non-hazardous, unless dilution is warranted in an emergency response situation or where the dilution is part of a hazardous waste treatment process regulated or exempted under 10 CSR 25-7 or 10 CSR 25-9. You may not dispose of regulated hazardous wastes in any sanitary, demolition, utility waste or special waste landfill in Missouri.

The following table lists typical properties of characteristic hazardous waste. This is not a complete listing, but only a guideline to determine if a waste is a characteristic hazardous waste.

Ignitability

Catches fire easily through friction, absorption of moisture or spontaneous chemical changes

Corrosivity

pH \leq 2.0 or pH \geq 12.5

Reactivity

Wastes that are normally unstable, react violently with water, can explode or release poisonous gases.

Toxicity

TCLP, EPA Method 1311, any contaminants listed in Table 1 of 40 CFR 261.24 equal to or greater than the listed concentration.

Once the waste is determined to be non-hazardous and contain no free liquids, you must request approval from the owner/operator to dispose of the special waste at the landfill by filling out and signing the generator's portion of the *Special Waste Disposal Request Form*. You must also identify health hazards associated with the material, as well as any special shipping, handling or safety requirements. For example, note whether the material should be transported in covered containers or whether it is a respiratory hazard. The *Material Safety Data Sheet*, if one exists for the material, lists some of this information. The completed *Special Waste Disposal Request Form*, along with appropriate test results and other pertinent information, are then sent

to the receiving landfill for the landfill owner or operator's review and signature prior to acceptance and disposal of the waste. Until a landfill accepts the waste for disposal, it is your responsibility to manage the waste in an environmentally sound manner. Should regulations or waste streams change to make a waste hazardous, you must handle this waste as a regulated hazardous waste.

I'm a sanitary landfill operator. What do I do prior to accepting special waste at my landfill?

It is the landfill owner or operator's responsibility to review the special waste disposal request and accompanying information to determine whether the landfill can legally accept and can properly manage the special waste.

According to the Hazardous Waste Management Law, Section 260.432.5 (2) RSMo, after Jan. 1, 1994, small quantities of hazardous waste, which are exempt from regulation under the provisions of Sections 260.350 to 260.434 RSMo, except de minimus amounts, shall not be placed in a sanitary landfill, demolition landfill, utility waste landfill or a special waste landfill.

Assuming testing shows the waste is non-hazardous, use the following guidelines to determine whether to accept a specific waste. You should consider any special handling requirements for the waste, and any landfill design restrictions that may limit the types of waste you should accept. For example, before accepting "wet" wastes, require the generator to perform a paint filter test. You cannot accept bulk liquids for sanitary landfill disposal. However, even waste that passes the paint filter test may not be manageable with the equipment you have at your facility. Similarly, your landfill may not be properly equipped to handle exceptionally dusty material. A sanitary landfill with a composite liner and leachate collection system may be best to handle certain special wastes in order to minimize the risk of groundwater contamination. You may want to consider the amount of special waste accepted per day in relation to the normal daily amount of municipal solid waste accepted. If the waste can cause operational or safety problems, you must document how these problems will be addressed. These are crucial aspects of waste disposal to consider before deciding whether to accept a waste. If you expect the waste to cause problems you cannot address, do not accept it.

You must notify the Water Pollution Control Program at least 30 days prior to accepting waste that may impact the landfill's surface water effluent as specified in the facility's *National Pollution Discharge Elimination System* permit. If the wastes are immediately covered and do not contact stormwater runoff, then the notification may not be necessary.

Do not accept any waste specifically excluded from disposal at the landfill. The following wastes may not be disposed of in any sanitary, demolition, utility waste or special waste landfill in Missouri:

- Regulated quantities of hazardous waste
- Most radioactive materials
- Regulated quantities of polychlorinated biphenols (PCB; concentration ≥ 50 ppm)
- Bulk liquids
- Explosives
- Highly flammable or volatile substances
- Septic tank pumpings
- Major appliances
- Waste oil

- Lead acid batteries
- Waste tires as provided by 10 CSR 80-8.020
- Yard waste
- Infectious waste as provided by 10 CSR 80-7.010

As previously mentioned, demolition landfills, utility waste landfills and special waste landfills have additional restrictions on the type of waste they can accept. Disposal of other waste requires a modification to the permit approved by SWMP prior to accepting the waste. You must also complete and sign the landfill's portion of the *Special Waste Disposal Request Form*, verifying that the landfill will properly manage the special waste. Submit one completed form with original signatures, plus one additional copy, to the appropriate DNR Regional Office. You should also send a copy to the special waste generator. Maintain a copy of the completed *Special Waste Disposal Request Form* and any supporting documentation at the landfill.

You must determine which special wastes to accept. You have the right to require additional testing or reject any waste based on the special waste criteria. The department does not normally review special waste disposal requests. However, the department will provide guidance if you request it. For further information, please contact SWMP at (573) 751-5401.

The special waste must be co-disposed with municipal solid waste on the active fill face. You may not bury special waste in a separate trench without prior written approval from the department. You may not use special waste as cover material without prior written approval from the department. You may request alternate methods of disposal by submitting a permit modification request to SWMP.

The SWMP is required to coordinate clean up activities of State Registry sites or Hazardous Waste Sites with the Hazardous Waste Program (HWP). For more information regarding this requirement, contact HWP at (573) 751-3176.

Direct questions pertaining to operational problems at a specific landfill to the appropriate Regional Office. Direct questions pertaining to hazardous waste determination and regulation to HWP at (573) 751-3176.

For more information

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